WHAT IS CLAIMED IS:

1. A sector drive assembly for a camera, comprising:

a sector unit comprising a base plate having an aperture and one or more sectors for opening and closing the aperture; and

a sector driving unit comprising a support plate, an electromagnetic actuator mounted to the support plate, and a drive force transmitting mechanism mounted to the support plate for transmitting a drive force of the electromagnetic actuator to the one or more sectors, the sector drive unit being removably mounted as a unit to the base plate.

2. A sector drive assembly for a camera according to claim 1; wherein the sector unit further comprises a sector urging spring for urging the one or more sectors in one direction.

3. A sector drive assembly for a camera according to claim 1; wherein the sector drive unit further comprises a sector position detecting unit for detecting a position of the sectors based on a position of the drive force transmitting mechanism.

4. A sector drive assembly for a camera according to claim 3; wherein the sector position detecting unit comprises a conductive spring element having a portion that undergoes movement with the drive force transmitting mechanism to come into and out of contact with a conductive member.

5. A sector drive assembly for a camera according to claim 1; wherein the one or more sectors comprise a plurality of sectors each having a sector arm connected thereto, and the sector arms are interconnected to cooperatively drive the sectors to open and close the aperture.

6. A sector drive assembly for a camera according to claim 1; wherein the drive force transmitting mechanism has an angular motion converting mechanism for converting a prescribed amount of angular movement of the electromagnetic actuator into an amount of angular movement of the sectors sufficient to drive the sectors from one of an aperture-opening position and an aperture-closing position to the other of the aperture-opening position and the aperture-closing position.

7. A sector drive assembly for a camera according to claim 6; wherein the electromagnetic actuator comprises a pulse motor which undergoes the prescribed amount of angular movement in response to application of a prescribed number of voltage or current pulses to the pulse motor for driving the sectors to either the aperture-opening position or the aperture-closing position depending upon the polarity of the pulses.

8. A sector drive assembly for a camera according to claim 7; wherein the pulse motor comprises a rotor having a plurality of magnetic poles, a stator having a plurality of magnetic poles, and a drive coil for driving the rotor, an angle

of rotation of the rotor in response to application of a voltage or current pulse to the drive coil being defined by a relationship between positions of the magnetic poles of the rotor and positions of the magnetic poles provided on the stator.

9. A sector drive assembly for a camera according to claim 8; wherein the positions of the magnetic poles provided on the stator are static stable positions at which the rotor is retained without the supply of power to the drive coil.

10. A sector drive assembly for a camera according to claim 6; wherein the drive force transmitting mechanism comprises a drive gear provided on a drive shaft of the electromagnetic actuator and a sector drive gear for driving the sectors.

11. A sector drive assembly for a camera, comprising:

a sector unit comprising a base plate having an aperture therethrough and one or more sectors each having a diaphragm opening smaller than the aperture; and

a sector drive unit comprising a support plate, an electromagnetic actuator mounted to the support plate, and a drive force transmitting mechanism mounted to the support plate for transmitting a drive force of the electromagnetic actuator to the one or more sectors, the sector drive unit being removably mounted as a unit to the base plate.

12. A sector drive assembly for a camera according to claim 11; wherein the sector unit further comprises a sector urging spring for urging the one or more sectors in one direction.

13. A sector drive assembly for a camera according to claim 11; wherein the sector drive unit further comprises a sector position detecting unit for detecting the driving state of the sectors based on the position of the drive force transmitting mechanism.

14. A sector drive assembly for a camera according to claim 13; wherein the sector position detecting unit comprises a conductive spring element having a portion that undergoes movement with the drive force transmitting mechanism to come into and out of contact with a conductive member.

15. A sector drive assembly for a camera according to claim 11; wherein the one or more sectors comprise a plurality of sectors each having a sector arm connected thereto, and the sector arms are interconnected to cooperatively drive the sectors to open and close the aperture.

16. A sector drive assembly for a camera according to claim 11; wherein the drive force transmitting mechanism has an angular motion converting mechanism for converting a prescribed amount of angular movement of the electromagnetic actuator into

an amount of angular movement of the sectors sufficient to drive the sectors from one of an aperture-opening position and an aperture-closing position to the other of the aperture-opening position and the aperture-closing position.

17. A sector drive assembly for a camera according to claim 16; wherein the electromagnetic actuator comprises a pulse motor which undergoes the prescribed amount of angular movement in response to application of a prescribed number of voltage or current pulses to the pulse motor for driving the sectors to either the aperture-opening position or the aperture-closing position depending upon the polarity of the pulses.

18. A sector drive assembly for a camera according to claim 17; wherein the pulse motor comprises a rotor having a plurality of magnetic poles, a stator having a plurality of magnetic poles, and a drive coil for driving the rotor, an angle of rotation of the rotor in response to application of a voltage or current pulse to the drive coil being defined by a relationship between positions of the magnetic poles of the rotor and positions of the magnetic poles provided on the stator.

19. A sector drive assembly for a camera according to claim 18; wherein the positions of the magnetic poles provided on the stator are static stable positions at which the rotor is retained without the supply of power to the drive coil.

20. A sector drive assembly for a camera according to claim 16; wherein the drive force transmitting mechanism comprises a drive gear provided on a drive shaft of the electromagnetic actuator and a sector drive gear for driving the sectors.